

What is claimed:

1. A modular seat cushion for supporting a person against a seat support structure of a predetermined configuration, comprising:
 - a human interface portion having an upper surface defining a support contour for supporting an anatomical portion of the person while seated on the cushion and also having a lower surface defining a first one of two complementary portions of an interlocking structure; and
 - a base portion having an upper surface defining a second one of the two complementary portions of the interlocking structure and also having a lower surface defining a contact configuration for contacting the seat support structure, the second complementary portion interconnecting with the first complementary portion upon contacting the lower surface of the human interface portion with the upper surface of the base portion, the contact configuration having a predetermined shape which complements at least a portion of the predetermined configuration of the seat support structure which the contact configuration contacts.
2. A modular seat cushion as defined in claim 1, wherein:
 - the human interface portion and the base portion are both formed of resilient synthetic plastic support material.
3. A modular seat cushion as defined in claim 2, wherein:
 - the resilient synthetic plastic support material is breathable.
4. A modular seat cushion as defined in claim 1, wherein:
 - the human interface and base portions each comprise resilient plastic beads which have been fused together.
5. A modular seat cushion as defined in claim 4, wherein:
 - the first and second complementary portions of the interlocking structure are formed of flexible plastic beads which have been fused together.
6. A modular seat cushion as defined in claim 4, wherein:
 - the human interface and base portions are formed substantially entirely of the fused together resilient plastic beads.
7. A modular seat cushion as defined in claim 2, wherein:

the first and second complementary portions of the interlocking structure are formed integrally with the human interface and base portions, respectively; and

- 5 the first and second complementary portions of the interlocking structure are formed of the resilient synthetic plastic support material from which the human interface and base portions are formed.

8. A modular seat cushion as defined in claim 1, wherein:

the first and second complementary portions of the interlocking structure extend substantially over the entire area of the lower surface and the upper surface of the human interface portion and the base portion, respectively.

9. A modular seat cushion as defined in claim 1, wherein:

the contact configuration extends substantially over the entire area of the lower surface of the base portion.

10. A modular seat cushion as defined in claim 1, wherein:

the seat support structure substantially complements the entire contact configuration.

11. A modular seat cushion as defined in claim 1, wherein:

the seat support structure is part of a wheelchair; and

the seat support structure is one selected from a group consisting of a platform seat, sling seat, dropped platform seat, pan seat and seat shell.

12. A modular seat cushion as defined in claim 1, wherein:

the lower and upper surfaces of the human interface and base portions, respectively, are of a substantially complementary shape with one another;

- 5 the interlocking structure comprises the complementary lower and upper surfaces of the human interface and base portions, respectively.

13. A modular seat cushion as defined in claim 1, wherein:

one of the first or second complementary portions of the interlocking structure comprises a protrusion extending from the lower or upper surface of the human interface or base portions, respectively;

- 5 the other one of the first or second complementary portions of the interlocking structure comprises a recess formed into the lower or upper surface of the human interface or base portions, respectively; and
- the recess has a complementary configuration and size to the configuration and size of the protrusion.
14. A modular seat cushion as defined in claim 13, wherein:
- the protrusion extends outward from the lower surface of the human interface portion; and
- the recess extends inward from the upper surface of the base
- 5 portion.
15. A modular seat cushion as defined in claim 14, wherein:
- the interlocking structure comprises the lower surface of the human interface portion from which the protrusion extends and the upper surface of the base portion into which the recess extends.
16. A modular seat cushion as defined in claim 14, wherein:
- a portion of the lower surface of the human interface portion adjacent to the protrusion has a complementary shape to a portion of the upper surface of the base portion adjacent to the recess; and
- 5 the interlocking structure comprises the portion of the lower surface of the human interface portion adjacent to the protrusion and the portion of the upper surface of the base portion adjacent to the recess.
17. A modular seat cushion as defined in claim 14, wherein:
- the recess extends completely through the base portion to define a hole in the base portion.
18. A modular seat cushion as defined in claim 17, wherein:
- the protrusion extends through the hole in the base portion and contacts the seat support structure when the human interface and base portions are interconnected together and the cushion is supported by the seat support
- 5 structure.
19. A modular seat cushion as defined in claim 1, further comprising:

a covering that encases the interconnected human interface and base portion portions.

20. A modular seat cushion as defined in claim 1, wherein:
the human interface portion is one of a plurality of different human interface portions;
each different human interface portion has a different support
5 contour;
the base portion is one of a plurality of different base portions;
each different base portion has a different contact configuration; and
the first complementary portion of the interlocking structures of all of the plurality of different human interface portions are consistent in configuration
10 with one another; and
the second complementary portion of the interlocking structures of all of the plurality of different base portions are consistent in configuration with one another.
21. A modular seat cushion as defined in claim 20, wherein:
the support contour of one of the plurality of different human interface portions accommodates the specific anatomy of the person.
22. A modular seat cushion as defined in claim 21, wherein:
at least two human interface portions of the plurality of different human interface portions each have a different support contour; and
each of the different support contours accommodates respectively
5 different generalized anatomical proportions of a person within one of at least two different generalized classes of persons.
23. A modular seat cushion as defined in claim 20, wherein:
each of the different support contours accommodates respectively different generalized anatomical proportions of a person within one of at least two different generalized classes of persons.
24. A modular seat cushion as defined in claim 1, wherein:
the predetermined configuration of the seat support structure includes a portion which has essentially the same shape characteristics as the

- second complementary portion of the interlocking structure of the base portion;
5 and
- the first complementary portion of the interlocking structure of the human interface portion interconnects with the portion of the seat support structure which has essentially the same shape characteristics as the second complementary portion of the interlocking structure.
25. A modular seat cushion as defined in claim 1, wherein:
the predetermined configuration of the seat support structure includes a portion which has a shape that is complementary to the first complementary portion of the interlocking structure of the human interface portion;
5 and
- the first complementary portion of the interlocking structure of the human interface portion interconnects with the portion of the seat support structure which has a shape that is complementary to the first complementary portion of the interlocking structure.
26. A modular seat cushion as defined in claim 1, wherein:
the seat support structure includes the base portion; and
the second complementary portion of the interlocking structure and the contact configuration of the base portion are formed in the seat support
5 structure as a unitary structure having the shape of the second complementary portion of the interlocking structure.
27. A modular seat cushion as defined in claim 26, further comprising:
a covering that encases the human interface.
28. A base structure for attaching a human interface portion of a seat cushion to a seat support structure of a wheelchair, the human interface portion including a support contour for supporting an anatomical portion of a person on the cushion, the seat support structure having a predetermined configuration for
5 supporting the seat cushion and the person seated on the cushion, the base structure comprising:

an upper surface having a configuration which complements and interconnects with a portion of the human interface portion other than the support contour; and

- 10 a lower surface having a configuration which complements and contacts a portion of the predetermined configuration of the seat support structure.

29. A base structure as defined in claim 28, wherein:

the base structure and the human interface portion are formed of resilient synthetic plastic support material.

30. A base structure as defined in claim 28, wherein:

the seat support structure is one selected from a group consisting of a platform seat, sling seat, dropped platform seat, pan seat and seat shell.

31. A base structure as defined in claim 30, wherein:

the support contour of the human interface portion is one of the plurality of different support contours each of which accommodates a person of different anatomical characteristics.

32. A method of creating a modular seat cushion to support a person from a seat support structure of a predetermined configuration, comprising:

- 5 selecting a human interface portion for the cushion from among a plurality of different human interface portions, each different human interface portion having a different support contour for supporting a person having different anatomical characteristics while seated on the cushion;

- 10 selecting a base portion for the cushion from among a plurality of different base portions, each different base portion having a different contact configuration which complements at least a portion of the predetermined configuration of a different seat support structure;

combining the selected human interface portion with the selected base portion to accommodate the anatomical characteristics of the person seated on the cushion and the predetermined configuration of the seat support structure.

33. A method as defined in claim 32, further comprising:

combining the selected human interface portion with the selected base portion by interlocking the selected human interface and base portions.

34. A method as defined in claim 33, further comprising:
interlocking the selected human interface portion with the selected base portion by interconnecting complementary portions of the selected human interface and base portions.
35. A method as defined in claim 32, further comprising:
interconnecting the complementary portions of any of the plurality of different human interface portions with any of the different base portions.
36. A method as defined in claim 32, wherein the seat support structure includes a portion having a predetermined configuration which duplicates the complementary portion of the base portion, and the method further comprises:
using the duplicative complementary portion of the seat support
5 structure as the base portion; and
interconnecting the complementary portions of the selected human interface portion and the seat support structure.
37. A method as defined in claim 32, wherein the complementary portions of the human interface portion and the base portion comprise a protrusion extending from one of the human interface or the base portions and a receptacle extending into the other one of the human interface or base portions, and the
5 method further comprises:
interconnecting the protrusion within the receptacle.
38. A method as defined in claim 32, further comprising:
preventing the complementary portions from deforming out of the interconnected relationship when the person is seated on the support contour by contacting the contact configuration with the seat support structure.
39. A method as defined in claim 32, further comprising:
selecting the human interface portion as one having a support contour which specifically accommodates specific anatomical characteristics of a singular person.
40. A method as defined in claim 39, further comprising:

selecting the human interface portion as one having a support contour which generally accommodates the anatomical characteristics of a general class of persons.

41. A method as defined in claim 32, further comprising:

selecting the human interface portion as one having a support contour among a plurality of support contours each of which generally accommodates the anatomical characteristics of a general class of persons.

42. A method as defined in claim 32, wherein the seat support structure is part of a wheelchair.

43. A method as defined in claim 42, wherein the seat support structure is one of a group consisting of a platform seat, sling seat, dropped platform seat, and seat shell.

44. A method as defined in claim 32, further comprising:

selecting the human interface and base portions as ones formed of resilient and breathable synthetic plastic support material.

45. A method as defined in claim 32, further comprising:

selecting the human interface and base portions as ones formed of resilient synthetic plastic beads which have been fused together.

46. A method of supporting a person on a cushion in a wheelchair from a seat support structure of a predetermined configuration, comprising:

selecting a human interface portion for the cushion from among a plurality of different human interface portions, each different human interface portion having a different support contour for supporting a person having different anatomical characteristics while seated on the cushion;

5 selecting a base portion for the cushion from among a plurality of different base portions, each different base portion having a different contact configuration which complements at least a portion of the predetermined configuration of a different seat support structure;

10 combining the selected human interface portion with the selected base portion;

- positioning the contact configuration of the base portion into
complementary contact with the predetermined configuration of the seat support
15 structure; and
- seating the person on the support contour with the anatomical portion
of the person in contact with the support contour of the human interface portion
while the base portion is in complementary contact with the predetermined
configuration of the seat support structure.
47. A method as defined in claim 46, further comprising:
maneuvering the wheelchair by action of the user while seated on the
cushion.
48. A method as defined in claim 47, further comprising:
removing the person from sitting on the support contour of the
selected human interface portion;
substituting a different selected human interface portion with a
5 different support contour for the previously selected human interface portion;
combining the selected substituted human interface portion with the
selected base portion; and thereafter
reseating the person on the support contour of the selected
substituted human interface portion with the support contour of the substituted
10 human interface portion in contact with the anatomical portion of the person while
the base portion is in complementary contact with the predetermined configuration
of the seat support structure.
49. A method as defined in claim 48, further comprising:
maneuvering the wheelchair by action of the user while reseated on
the support contour of the selected substituted human interface portion.
50. A method as defined in claim 46, further comprising:
removing the person from sitting on the support contour of the
selected human interface portion;
substituting a different selected human interface portion with a
5 different support contour for the previously selected human interface portion;

combining the selected substituted human interface portion with the selected base portion; and thereafter

reseating the person on the support contour of the selected substituted human interface portion with the support contour of the substituted human interface portion in contact with the anatomical portion of the person while the base portion is in complementary contact with the predetermined configuration of the seat support structure.

51. A method of attaching a human interface portion of a seat cushion to a seat support structure of a wheelchair, the human interface portion including a support contour for supporting an anatomical portion of a person on the seat cushion, the seat support structure having a predetermined configuration for supporting the seat cushion and the person seated on the cushion, the method comprising:

interposing a base portion between the human interface portion and the seat support structure of the wheelchair;

interconnecting the base portion and the human interface portion;
and

contacting the base portion in a complementary manner with the predetermined configuration of the seat support structure.

52. A method as defined in claim 51, wherein the base structure and the seat cushion are formed of resilient synthetic plastic support material.

53. A method as defined in claim 51, further comprising:
selecting the seat support structure from a group consisting of a platform seat, sling seat, dropped platform seat, pan seat and seat shell.

54. A method as defined in claim 53, further comprising:
selecting the support contour of the human interface portion from a group of human interface portions each of which has a different support contours to accommodate different anatomical characteristics.